

Calc BC Chapter 4 Practice Test
Pg 1 of 6

1. a. $x=1$
- b. $x=3$
- c. $1 < x < 3$
- d. $x < 1$ $x > 3$
- e. $-\infty < x < 2$
- f. $2 < x < \infty$

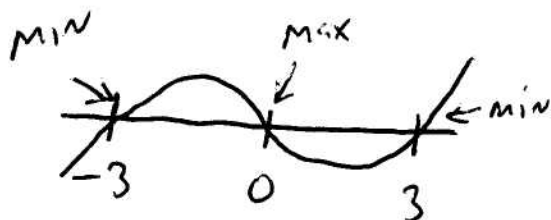
2. $g(x) = x^4 - 18x^2 + 2$

a. $g'(x) = 4x^3 - 36x$

$$4x^3 - 36x = 0$$

$$4x(x^2 - 9) = 0$$

$$x=0 \quad x=3 \quad x=-3$$



Relative min $(-3, -79)$ $(3, -79)$
Relative max $(0, 2)$

b.

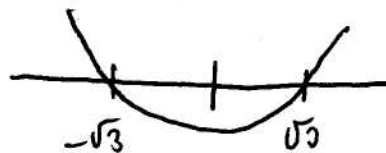
$g(x)$ decreasing $x < -3$, $0 < x < 3$

c.

$g(x)$ concave up

$$g''(x) = 12x^2 - 36$$

$$12(x - \sqrt{3})(x + \sqrt{3})$$



d.

concave up $x < -\sqrt{3}$ and $x > \sqrt{3}$
concave down $-\sqrt{3} < x < \sqrt{3}$

